

shoes is ornamental rather than functional, Korean manufacturers were able to alter some athletic shoes so they would not be classified as leather and therefore not be covered by the OMA restrictions.^{12/} As a result, Korean exports of rubber and fabric footwear to the United States increased substantially while the restraints were in effect and exceeded exports of nonrubber footwear between 1978 and 1981. When the restraints expired, Korean exports of rubber and fabric footwear fell by more than 20 percent.

Despite the growth from unconstrained sources, imports of nonrubber footwear grew much less rapidly while the quotas were in effect than before or after they were instituted. In 1981, the year the quotas expired, shoe imports were 2.6 percent higher than they had been in 1976; in the five years before quotas began, imports had grown by more than 25 percent. Shoe imports, however, more than doubled in the four years after the quotas expired.^{13/} By 1984, imports had achieved a substantial share of the domestic market in all the major segments of the industry. They accounted for 64.4 percent of the domestic consumption of men's shoes, 64.5 percent of children's shoes, 78.9 percent of women's shoes, and 91.5 percent of athletic shoes (or when measured in value, 31.8 percent, 37.4 percent, 49.7 percent, and 77.2 percent, respectively).^{14/}

Prices of Imports. Although imports from unrestricted countries compensated for the reduced supplies from Korea and Taiwan, the quotas reduced the quantity of imported footwear in certain categories, and hence the prices of imported shoes increased.

The average unit price of imports from all sources, adjusted for changes in the GNP deflator, increased by 22 percent between 1976 and 1978, the first full year of the restraints. The fall in the value of the dollar during that period undoubtedly contributed to the increase in import prices. As the U.S. economy entered a recession in 1980 and the dollar began its rapid appreciation the following year, average prices declined. Nevertheless, in 1981 the real average price of imported shoes was

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12. International Trade Commission, *Nonrubber Footwear: Report to the President on Investigation No. TA-203-7*, Publication 1139, p. A-9.
 13. Toward the end of the quota period, the U.S. economy experienced back-to-back recessions. This slump undoubtedly slowed the growth of imports, just as the subsequent recovery contributed to the import spurt that followed the expiration of the quotas.
 14. See International Trade Commission, *Nonrubber Footwear: Report to the President on Investigation TA-201-55*, Publication 1717 (Washington, D.C.: ITC, July 1985), p. A-24.

9 percent higher than it had been in 1976. The average real price of footwear from Taiwan, however, increased by 90 percent between 1976 and 1981, and the average price of Korean shoes increased by 25 percent. Between 1981 and 1984, prices of imported footwear declined by 15 percent as the quantity of imports increased rapidly after the quotas lapsed and the value of the dollar strengthened. ^{15/}

The increased prices of Taiwanese and Korean footwear reflected more than a reduction in supply; restrictions on quantity provide importers with incentives to shift their product mix toward higher-priced products. In 1976, the average price of shoes from Taiwan was a third of the average price from other foreign sources. While the quotas were in effect, this percentage increased, reaching 70 percent in 1981. After the quotas lapsed, the ratio of the average price of Taiwanese shoes to the prices of other imports fell below 60 percent. ^{16/}

IMPACT OF QUOTAS ON THE DOMESTIC INDUSTRY

If the goals of protection are to preserve domestic employment in the short run, while giving an industry the time and the resources to compete more effectively, they were not achieved in the footwear industry. Although quotas curtailed the growth of shoe imports, domestic production of footwear continued to fall. Investment did increase somewhat in the final years of the quotas. It did little, however, to increase the industry's international competitiveness.

Domestic Output

Domestic shoes are not perfect substitutes for imported ones; there are differences in quality and style. Consequently, a reduction in the quantity of imports cannot be expected to lead to a corresponding increase in domestic demand. Between 1976 and 1981, the year the quotas lapsed, domestic

15. The real unit values of Taiwanese shoes fell by 20 percent in 1982, and prices of Korean shoes fell by 16 percent. Prices of shoes from other sources, however, rose slightly.

16. As Taiwan reduced its shipments of low-priced shoes, manufacturers in other countries stepped in to fill the void. The decline in prices of imported shoes from countries other than Taiwan and Korea was probably the result of increased shipments of lower-quality shoes from these countries.

shoe production fell by 12 percent.^{17/} Since imports remained relatively flat during this period, domestic shoe consumption declined while the quotas were in effect. Nevertheless, the decline in domestic production during the period of restraints was substantially slower than it had been before quotas were imposed. Between 1971 and 1976, it had fallen by more than 20 percent. There were recessions during both periods (1975 and 1980) that adversely affected demand for shoes.

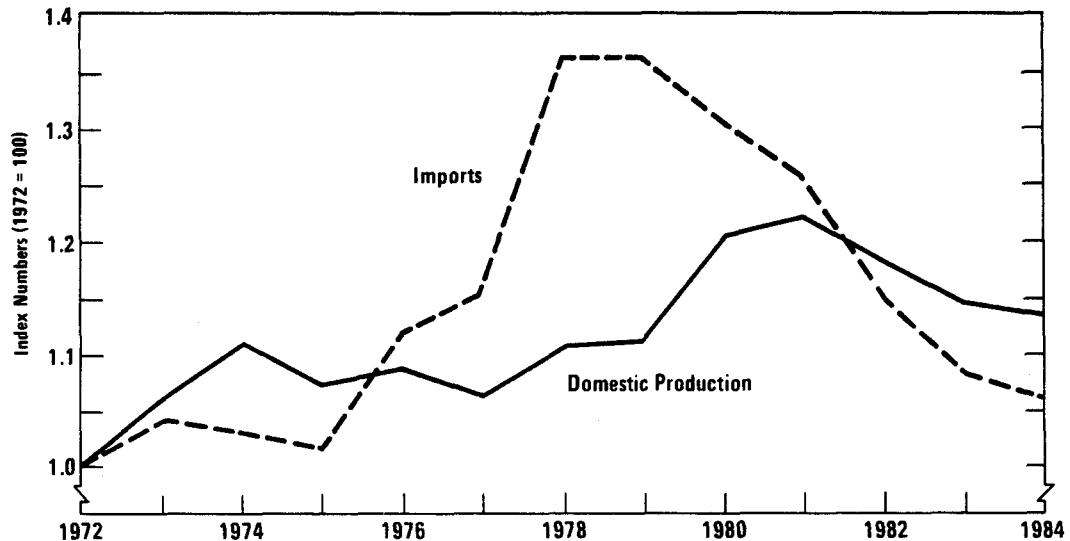
The decline in production led to an 11 percent contraction in employment in the industry, with 18,000 fewer employees in 1981 than in 1976. Moreover, average hourly compensation in the footwear industry, which was 65 percent of the average of all manufacturing in 1976, had fallen to 61 percent by 1982.

Prices and Profits

Protection did apparently increase the price of domestically produced shoes and the profits of shoe manufacturers. The rise in the price of domestic shoes, however, was not nearly as great as it was for imports (see Figure 13). Between 1977 and 1979, the real unit values of domestically produced shoes increased by 2 percent. Although the average price of imports peaked in 1979, real domestic shoe prices increased by 10 percent between then and 1981. In part, this rise was the result of a 30 percent increase in the real price of leather, an important input into footwear.^{18/} But the increase in average prices was also the result of the increasing emphasis of domestic manufacturers on higher-priced shoes. The producer price index for footwear, which holds the mix of shoes constant, rose

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17. After remaining relatively constant in the first two years of the quotas, domestic production fell by nearly 5 percent in 1979, and by around 3.5 percent in each of the two subsequent years. The ITC estimated that, because of the quotas, domestic production was 7 percent higher in 1977 and 1978, and 4 percent higher in 1979, the last year included in its analysis. See International Trade Commission, *Economic Effects of Export Restraints*, Publication 1256 (Washington, D.C.: ITC, June 1982), p. 25.
 18. The International Trade Commission used the producer price index to measure the price of footwear and estimated that the Orderly Marketing Agreements (OMAs) increased domestic prices by 0.5 percent in 1977, 1.1 percent in 1978, and 10 percent in 1979. Their estimate of the effect in 1979 is much larger than is suggested by this discussion. The producer price index registered a nominal increase of 19 percent in 1979 and 7 percent in 1980; average unit values reversed this pattern and showed a much larger increase in 1980. Moreover, in estimating the effect of the OMA, the ITC did not take into account the rapid increase in the price of leather. See International Trade Commission, *Economic Effects of Export Restraints*, p. 25 and Appendix D.

Figure 13.
Unit Values of Nonrubber Footwear



SOURCE: Congressional Budget Office based on data supplied by Department of Commerce.

NOTE: Adjusted by GNP Deflator.

10 percent less than the increase in the average unit value between 1976 and 1981. Nevertheless, it appears reasonable to conclude that the VRAs resulted in some increase in the prices of domestically produced shoes.

An increase in profitability for footwear manufacturers provides further support that the OMAs increased the prices of domestic shoes.^{19/} The International Trade Commission data indicate that after remaining relatively stable between 1975 and 1979, before-tax profit margins increased subsequently and were 80 percent higher in 1981 (see Table 6).

It is doubtful that protection was entirely responsible for the large increase in profits. In the first place, the data were drawn from different samples, and the firms in the latest sample were apparently more profitable

19. The only available information on the profitability of shoe manufacturing comes from two ITC surveys that were done in conjunction with its "escape clause" investigations. The surveys do not include the same firms and are, therefore, not strictly comparable. In addition, the larger firms, which tend to be more profitable, are overrepresented in the sample. See International Trade Commission, *Footwear: Report to the President on Investigation No. TA-201-18*, Publication 799, pp. A-37 and A-42, and International Trade Commission, *Nonrubber Footwear: Report to the President on Investigation No. TA-201-55*, Publication 1717, p. A-54.

TABLE 6. OUTPUT EMPLOYMENT, PROFITS, AND INVESTMENT
IN THE NONRUBBER FOOTWEAR INDUSTRY

Year	Quantity of Shoes (In millions)	Employees (In thousands)	Before-Tax Profits as Percent of Sales		Investment (In millions of 1977 dollars) ^{a/}
			Footwear	All Manufacturing	
1972	527	176	n.a.	n.a.	53.7
1973	498	170	n.a.	n.a.	60.1
1974	453	162	n.a.	8.7	56.2
1975	413	146	n.a.	7.5	39.9
1976	428	149	n.a.	8.7	36.8
1977	418	145	5.3	8.7	37.1
1978	419	144	5.3	8.9	37.9
1979	399	138	5.2	8.9	51.4
1980	386	135	8.4	8.3	52.2
1981	392	133	9.5	7.4	74.5
1982	342	122	7.3	5.3	44.1
1983	341	115	8.2	6.3	33.7
1984	344	102	5.3	7.1	n.a.

SOURCE: Department of Commerce; International Trade Commission.

NOTES: Profit margins were derived by the International Trade Commission from three different surveys; the surveys did not include the same firms. The first survey covered 1975, the second survey covered 1977 through 1980, and the third survey covered 1980 through 1984. The profit margin reported for 1980 is from the latter survey; it was 7.8 percent in the earlier survey.

n.a. = not available.

a. Deflated by the GNP deflator.

than those in the earlier ones. (Two of the surveys include 1980, and the margin in the later sample was 0.6 percentage points higher.) Second, although profits declined once the quotas were lifted, they remained above the levels they had been before 1980. Apparently, domestic producers were abandoning production of lower priced shoes, which were the least profitable segment of the industry. To derive an estimate of the effect of protection on profits, assume that without protection, shoe manufacturers would have earned in 1980 and 1981 what they had earned in the two subsequent years and adjust for the higher profitability in the latter sample. In that case, the quotas increased profit margins by 0.6 percentage points in 1980 and 1.6 percentage points in 1981. In addition, if one assumes that these profit margins are representative of all the firms, then industry profits would have increased by \$30 million and \$80 million in the two years.

During the period in which the quotas were in effect, shoe manufacturers increased their investments in plant and equipment. In 1981, the real value of investments by shoe manufacturers was approximately double what it had been in 1976. Nevertheless, 1981 was the only year in which investment in plant and equipment by firms exceeded the levels of capital expenditure of years as recent as 1973 and 1974. The estimated increase in before-tax profits was 45 percent and 77 percent of investment in the two years. Investments in plant and equipment declined significantly in 1982 after the quotas lapsed, which was also a recessionary year. According to the ITC's surveys, the footwear industry's debt-to-stockholder's equity has been well above the average for all manufacturing.²⁰ Thus, the increased investment may have been, at least in part, attributable to the restraints.

Although trade protection may have increased investment in plant and equipment, it did not enable the industry to improve its international competitive standing substantially. Despite its adoption of computer-aided design, grading and stitching systems, laser powered cutting tools, and unit bottom molding equipment, the industry's productivity has not improved appreciably. Between 1977 and 1981, when the quotas were in effect, output per employee hour in the shoe industry declined at an annual rate of 1.2 percent; in all sectors of manufacturing, productivity had increased at

20. See International Trade Commission, *Nonrubber Footwear: Report to the President on Investigation Number TA-201-50*, Publication 1545 (Washington, D.C.: ITC, July 1984), pp. A-138 to A-143. See also International Trade Commission, *Nonrubber Footwear: Report to the President on Investigation, Number TA-201-55*, Publication 1717, pp. A-150 to A-155.

an average rate of 1.1 percent. Between 1981 and 1984, productivity in the shoe industry grew at one-half the 3.4 percent rate that it rose in all manufacturing. ^{21/}

CONCLUSION

While increased imports from unconstrained sources undermined the effectiveness of the restraints, little doubt exists that imports were lower than they otherwise would have been, and output as well as profits were somewhat higher. There is also some evidence that investment increased. After trade protection lapsed, the quantity of imports expanded rapidly, domestic output declined, and industry profits moved downward. In fact, recent requests by the footwear industry for another round of trade protection indicate that the first round of trade protection did not substantially improve the industry's competitive position. Although the ITC recommended additional protection in 1985, President Reagan did not grant it.

21. This rate is based on data from the Bureau of Labor Statistics, Department of Labor. Between 1972 and 1977, productivity in the shoe industry had increased at an annual rate of 0.5 percent as compared with a 2.4 percent increase for all manufacturing. The productivity measure does not adjust for changes in the output mix.

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CHAPTER V

AUTOMOBILES

In the early 1960s, the automotive industry successfully fought off the initial wave of European imports. Since then, the imported share of domestic car sales has steadily increased, and in the mid-1970s Japan replaced Europe as the main source of imports. In 1981, with the economy weak and the price of oil high, Japan agreed to limit its exports of cars to the United States for a year. The voluntary restraint agreement (VRA) was extended for three more years and lapsed in the spring of 1985. Japan, however, has unilaterally restricted its exports to the United States for another two years.

The restraints on the imports of Japanese cars provided significant aid to the domestic industry. In 1983, the economic recovery buoyed new car demand, and the VRAs limited increases in sales of Japanese cars. Moreover, manufacturers from other countries were not able to fill the void created by the restraints. As a result, the trade restraints increased prices and output for domestic cars, along with industry profits. Furthermore, industry investment rose in 1984 and 1985. Nevertheless, the trade restraints do not appear to have had much effect on the domestic industry's international competitiveness.

THE GROWTH OF IMPORTS

In the first part of the twentieth century, the domestic automobile industry had established the basic production and marketing principles that prevailed well into the 1960s. Automobile manufacturers minimized production costs by limiting the number of basic body styles they offered. The demand for diversity was satisfied by frequent but largely cosmetic model changes along with differing levels of opulence offered by the various models. This arrangement proved very profitable for the industry in general and most notably for General Motors, the industry's leader. Moreover, given the large scale of operation necessary to be an efficient automobile producer, there were no potential competitors on the horizon.

This pattern changed when European imports, led by the Volkswagen Beetle, grew rapidly in the late 1950s. Because of higher fuel prices and

lower per capita incomes in Europe, these cars were designed to be lower priced and less expensive to operate than domestic vehicles. Such attributes made imported cars attractive to certain segments of the U.S. automobile market, and by 1959 European imports had captured more than 10 percent of domestic sales (see Figure 14).

The domestic manufacturers first response to the increased European competition was to import cars from their European subsidiaries.^{1/} The three major domestic automobile manufacturers, however, ultimately decided to introduce cars that were smaller and lower priced than their standard products. The Corvair, Falcon, and Valiant were quite successful. Between 1959, when the compacts were introduced, and 1962, sales of imported cars declined by 45 percent, and their market share slipped to less than 5 percent.

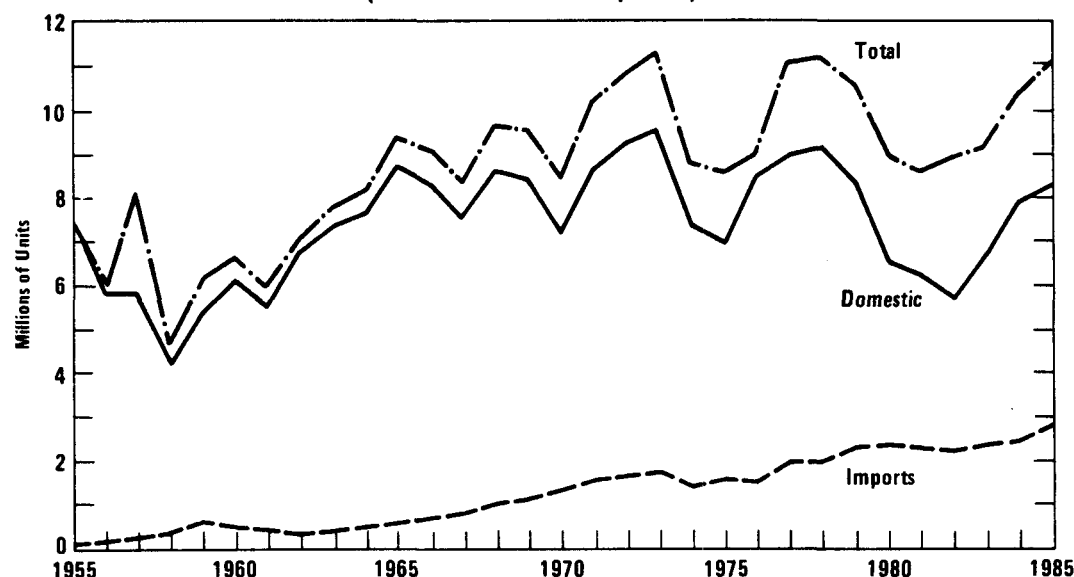
Although the compacts reduced the imported share of the domestic market, they were not very profitable. It has traditionally been true that the larger the car, the higher its price and the more profitable it is to manufacture.^{2/} This is partly because smaller domestic cars compete most directly with imports. The Europeans, at least until the late 1960s, and subsequently the Japanese, have been able to produce these cars at a lower cost than domestic manufacturers.

Consequently, in 1962 the automobile manufacturers increased the size of their compacts. Although doing so may have increased profits, the redesigned small cars were less successful against the imports. Between 1962 and 1968, sales of imports grew at an average annual rate of 20 percent, and their market share again surpassed 10 percent. It reached 15 percent by 1970 as sales of imports continued to increase, despite a decline in overall new car sales. Europe, and most notably Germany, continued to account for the bulk of the imports. Even though Japan's auto exports to the United States grew very rapidly, they accounted for less than 4 percent of domestic new car sales in 1970.

For 1971, U.S. manufacturers again introduced new models to halt the growth of imported cars and to meet the growing demand for small cars.

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1. See Lawrence White, *The Automobile Industry Since 1945* (Cambridge: Harvard University Press, 1971), pp. 177-188.
 2. See National Academy of Sciences, *The Competitive Status of the Automobile Industry* (Washington, D.C.: NAS, 1984), p. 69. Also see, John E. Kwoka, Jr., "Market Segmentation by Product Quality: Some Evidence from Automobiles," George Washington University, Department of Economics Discussion Paper, 1985.

Figure 14.
Automobile Retail Sales (Domestic and Imports)



SOURCE: Congressional Budget Office based on data supplied by the Motor Vehicle Manufacturers Association.

But GM's Vega and Ford's Pinto were not nearly as successful at stemming the growth of imports as their predecessors had been. Although the climb in the market share of imports was essentially arrested for two years, the quantity of imports continued to increase.

The First Oil Shock

Demand for fuel-efficient cars was given a boost by the Arab oil embargo and the emergence of OPEC in 1973. Because of domestic oil price controls, long lines at gasoline stations helped to ration gasoline supplies. The real price of gasoline, however, ultimately increased by nearly 25 percent between 1972 and 1975, reversing a 10-year decline.

The higher gasoline prices reduced demand for automobiles, and it was further depressed by the recession that began in the latter half of 1974. Consequently, between 1973 and 1975 new car sales fell by 25 percent; sales of the larger domestic cars fell by almost 50 percent as compared with a less than 10 percent decline in the sales of smaller domestic cars.^{3/} Sales

3. This amount includes vehicles that are classified as compact or subcompact. Other size classifications include intermediate, full-size, and luxury. This report uses the classifications developed in *Ward's Automotive Yearbook* (Detroit: Ward's Communication, Inc., various years).

of imports, which were predominantly small cars, also fell by less than 10 percent, and their share of the market increased from 15 percent in 1973 to 18 percent in 1975. Japanese imports increased by 9 percent during this period, however, and Japan replaced Europe as the major supplier of foreign cars to the United States.

The Industry's Response to Government Regulations

Increased demand for smaller cars forced the domestic auto industry to accelerate its development of more fuel-efficient cars. In 1975, the Congress reinforced this demand when it passed the Energy Policy and Conservation Act. The act continued government price controls on oil and oil products. But because limiting gasoline prices reduced the incentives of manufacturers to produce fuel efficient cars, the act imposed Corporate Average Fuel Economy (CAFE) standards on automobile manufacturers. These standards required a 75 percent improvement in the miles per gallon for the average vehicle sold in the United States.^{4/} Since the standards were the same for all manufacturers--that is, an average fuel economy of 27.5 miles per gallon by 1985--some firms had to achieve a substantially greater improvement than others.^{5/} The CAFE standards did not apply to individual models. Beginning in 1980, however, the act imposed a "gas guzzler" tax for model lines with particularly low fuel economy. In the 1986 model year, this tax ranged from \$500 per car sold for models that achieved a 21.5 to 22.5 miles per gallon to \$3,850 for models that achieved less than 12.5 miles per gallon.^{6/}

Market developments alone would have encouraged automakers to produce more fuel-efficient cars. In fact, a recent study concludes that the standards did not influence the fuel economy of the Big Three's domestic cars through the 1981 model year. According to this study, however, between 1982 and 1984, the standards may have encouraged domestic producers to increase the price differences between large and small cars in order to increase sales of the more fuel-efficient vehicles.^{7/} Nevertheless,

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4. See Robert Crandall and others, *Regulating the Automobile* (Washington, D.C.: The Brookings Institution, 1986), pp. 122, 126.
 5. The Department of Transportation relaxed the standard to 26 miles per gallon for the 1986 model year.
 6. 26 USC 4064.
 7. Crandall and others, *Regulating the Automobile*, pp. 132-138.

achieving such a large improvement in fuel economy was a substantial undertaking. Manufacturers had to reduce the size and weight of the vehicles, as well as to incorporate new technologies and materials. It takes from three to five years to design and build a new automobile model, and to redesign all of a company's model lines can take as long as ten years.

For the industry, the complex task of redesigning its fleet was complicated by a host of safety and environmental regulations that the government had imposed. In 1966, the National Highway and Motor Vehicle Safety Act established the National Highway Traffic Safety Administration with broad powers to promulgate regulations relating to the safety of automobiles. Regulations adopted by NHTSA affected things as diverse as seat belts, steering wheels, and bumpers. In 1970, the Clean Air Act required that by 1976 auto manufacturers had to reduce emissions of hydrocarbons, carbon monoxide, and nitrogen oxides up to 95 percent of the levels of 1968 automobiles. The hydrocarbon and carbon monoxide standards were delayed until 1980 and 1981, respectively. A nitrogen oxide standard that was less stringent than the one that was originally proposed took effect in 1981.

Regardless of their merits, these regulations inserted the government squarely into the automobile companies' planning and production decisions. In the first place, the safety and emission regulations directly increased the cost of manufacturing cars (see Table 7). Moreover, they frequently conflicted with the need of car manufacturers to increase fuel economy. The safety standards generally required the automakers to add equipment to the vehicles, which increased their weight and lowered their fuel economy. For example, the heavier assembly needed to comply with the regulation that bumpers withstand a 5 mile per hour collision resulted in a 2 percent reduction in fuel economy.⁸ Moreover, this standard took effect in the 1973 model year, just before the Arab oil embargo.

For the most part, the safety regulations could be met with existing technologies. This was not the case with the emission standards. Thus, at the same time that the automobile manufacturers had to develop the means to improve fuel economy, they had to develop technologies to reduce emissions. As with the safety standards, meeting the emission standards frequently required a sacrifice in fuel economy. One study estimates that the more stringent 1981 emission standards reduced fuel economy by 7 percent.

8. See Crandall and others, *Regulating the Automobile*, p. 143. The standard was relaxed in 1982.

TABLE 7. THE ANNUAL EFFECTS OF FEDERAL REGULATIONS
ON THE AVERAGE RETAIL PRICE OF DOMESTIC CARS
(In 1980 dollars)

Year	Safety	Emission	Total
1968	70.23	26.53	96.75
1969	31.47	0.00	31.47
1970	56.24	11.67	67.91
1971	0.00	0.00	0.00
1972	3.94	13.79	17.73
1973	158.72	51.36	210.09
1974	179.79	2.34	182.13
1975	-55.27	182.50	127.23
1976	19.40	11.00	30.40
1977	9.45	19.44	28.90
1978	0.00	12.50	12.50
1979	6.53	13.74	20.26
1980	13.29	118.04	131.33
1981	3.89	422.79	426.68
1982	0.00	72.29	72.29
1983	0.00	53.72	53.72
1984	-9.59	46.72	37.13
1985	0.00	15.37	15.37

SOURCE: Congressional Budget Office; Bureau of Labor Statistics, Department of Labor.

NOTE: The negative effects in 1975 and 1984 reflect discontinuation of seat belt-ignition interlock system and relaxation of the bumper standard, respectively.

Moreover, these standards took effect in the year that real gasoline prices peaked.^{9/}

A Temporary Recovery

Beginning in 1975, the auto industry was helped by a number of developments. New car models and the redesign of existing ones were in large part responsible for a 40 percent increase in the average fuel economy of new cars sold domestically between 1973 and 1978.^{10/} The real price of gasoline declined after 1975, and the economy emerged from the recession. As a result, car sales grew at an average annual rate of 9 percent between 1975 and 1978; sales of the more fuel-efficient larger cars grew at an average annual rate of more than 13 percent (see Figure 15). The recovery of the large-car segment of the market, however, did nothing to curtail the growth of imports. Their share of the market remained at roughly 18 percent. By the late 1970s, Japan accounted for nearly 70 percent of car imports.

Higher sales, coupled with a shift in the product mix toward larger cars, led to a substantial recovery in the automobile manufacturers' profits from their 1974 and 1975 lows. But when measured as a percentage of sales or as a percentage of stockholders' equity, the industry's profitability did not reach the levels of the mid-1960s. Foreshadowing future events, Chrysler actually recorded a loss in 1978, after posting the slimmest of profits the year before.

The Second Oil Price Shock

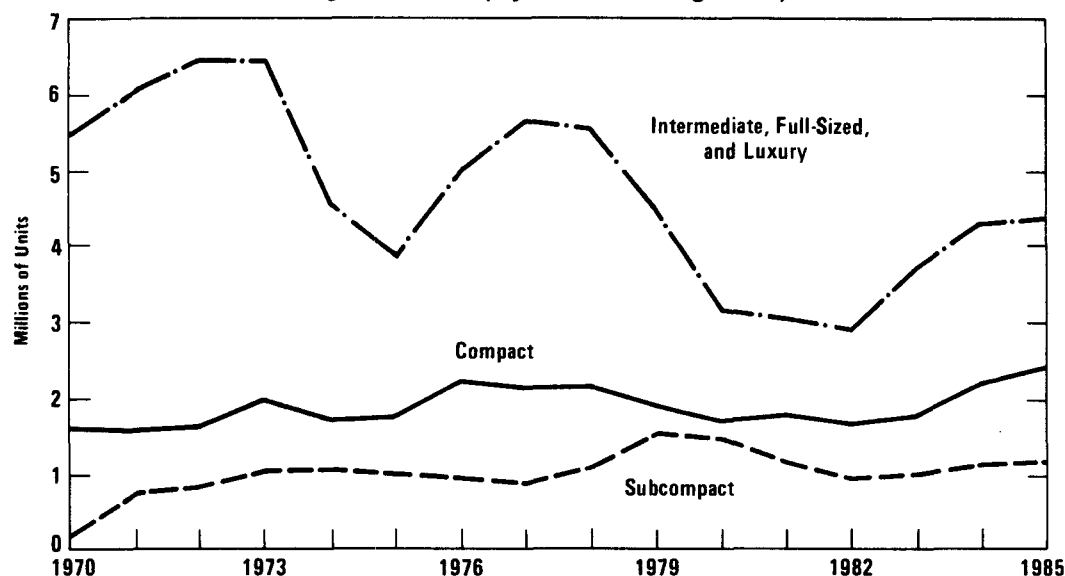
In the late 1970s, another escalation of world oil prices took place. The real price of gasoline increased by 50 percent between 1978 and 1980, and in 1980 the domestic economy experienced a recession that was quickly followed by yet another one in 1981 and 1982. The rapid increase in gasoline prices led to a replay of the mid-1970s; the demand for automobiles declined and shifted toward smaller cars. Fuel prices increased by a larger amount than in the previous episode, and the economic downturn that followed was of longer duration. Consequently, the adverse effects on the automobile producers were more severe. Between 1978 and 1981, domestic

9. Lawrence J. White, *The Regulation of Air Pollutant Emissions from Motor Vehicles* (Washington, D.C.: American Enterprise Institute, 1982), pp. 63-64.

10. Crandall and others, *Regulating the Automobile*, p. 122.

Figure 15.

Domestic New Car Registrations (By Market Segment)



SOURCE: Congressional Budget Office based on data in Ward's Automotive Yearbook (Detroit: Ward's Communication Inc.), various issues.

sales of new cars declined by nearly 30 percent, and sales of large cars fell by over 40 percent. In the meanwhile, the shift in demand toward smaller cars increased imports by 15 percent. Sales of Japanese imports increased by 40 percent, while sales of European imports fell almost as rapidly as domestic automobiles.

Sales of domestic small cars did not fare as well during the second oil price shock as they had in the first. An important reason for this divergence was the increasing perception among new car buyers that foreign cars, and especially Japanese cars, were of higher quality. Using the frequency of repair statistics from *Consumer Reports*, one study showed that between 1970 and 1982 the ratings of domestic manufacturers declined vis-a-vis Japanese cars.^{11/} Other surveys of consumer sentiment came to similar conclusions. In a 1982 ranking of how satisfied purchasers were with their new cars, J.D. Powers found that Japanese manufacturers had six of the top ten places while domestic manufacturers had none.^{12/}

11. See Crandall and others, *Regulating the Automobile*, p. 151.

12. See Malcom S. Salter and others, "U.S. Competitiveness in Global Industries: Lessons from the Auto Industry," in Bruce Scott and George Lodge, *U.S. Competitiveness in the World Economy* (Boston: Harvard Business School Press, 1985), p.190.